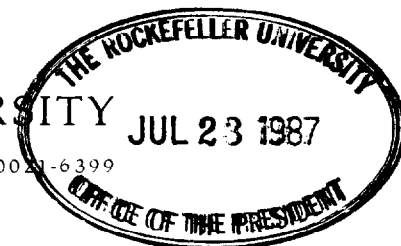




THE ROCKEFELLER UNIVERSITY

1230 YORK AVENUE • NEW YORK, NEW YORK 10021-6399



July 22, 1987

Dr. Joshua Lederberg  
President  
The Rockefeller University

Dear Josh:

I am inclined to think that the value of mass doublet tabulations such as the ones you sent me has been much diminished by the increasingly widespread availability of mass spectrometer data systems. In our mass spectrometer, for example, the data system has a mass and elemental composition module which rapidly and easily gives exact mass information. Furthermore, when we do exact mass measurements for the purpose of determining elemental compositions, the data system prints out possible elemental compositions with limits (which can be quite wide) chosen by the operator. I feel that in practical operations we would almost invariably turn to our data system to get needed exact mass information rather than using a table. I think that no contemporary mass spectrometers capable of obtaining high resolution and exact mass determinations are sold without data systems, and thus data systems are widespread and will become more so. Of course, cases will exist where perhaps having an elaborate tabulation of doublets would be useful, but I rather imagine that these will be quite specialized. I am also not particularly sanguine about the pedagogical utility of this elaborate table, for similar, although simpler, information is included in a number of pedagogical works on mass spectrometry.

I hope these comments are of some use to you.

Yours truly,

*Frauke*

F.H. Field